

Official Title: Foot/Hand Neuromodulation for Overactive Bladder (OAB)

Clinical Trials.gov ID: NCT01972061

Document Date: August 1, 2018

[\[reviewer notes~\]](#)

Provide a short title for this study (200 characters or less):

Foot/Hand Neuromodulation for Overactive Bladder (OAB)

T1.0

Select the type of application:

New Research Study

T2.0

Is the proposed research study limited to the inclusion of deceased individuals?

* No

T2.1

Are any research activities being conducted at the VA Pittsburgh Healthcare System or with VA funds?

* No

[\[reviewer notes~\]](#)

T3.0

What is the anticipated risk to the research participants?

Greater Than Minimal Risk

[\[reviewer notes→\]](#)**CS1.0 What is the reason for this submission?**

New Research Protocol Submission

CS1.1**Has this research study been approved previously by the University of Pittsburgh IRB?**

* No

CS1.1.1**Has this research study (or a substantially similar research study) been previously disapproved by the University of Pittsburgh IRB or, to your knowledge, by any other IRB?**

* No

[\[reviewer notes→\]](#)**CS2.0****Title of Research Study:****Foot/Hand Neuromodulation for Overactive Bladder (OAB)****CS2.0.1****Requested approval letter wording:****CS2.1****Research Protocol Abstract:**

The purpose of this study is to determine the efficacy of foot stimulation for the treatment of overactive bladder (OAB) symptoms. Electrical stimulation will be applied to the foot via skin surface electrodes to 20 subjects during CMG testing in the clinical setting to determine if bladder capacity can be increased by stimulation.

Electrical stimulation will also be used by another 80 subjects at home for a one week period and we will collect a voiding diary one week before, one week during, and one week after the stimulation. 20 subject will use foot stimulation for 3 hours in the evening prior to sleep; 20 subjects will use foot stimulation for half hour in the evening prior to sleep; 20 subjects will use hand stimulation for three hours in the evening prior to sleep; and 20 subjects will use foot stimulation after stopping use of the OAB drugs. 20 subjects will be enrolled in a 12-week foot stimulation test. They will be asked to stimulate for the following duration: Week1:3 hours every evening prior to sleep, Week 2-12: 3 hours of foot stimulation prior to sleep, every third day. 3-day voiding diaries will be completed: before foot stimulation, 6 weeks after beginning foot stimulation, the last three days of the 12 week period, the week after completing foot stimulation. The subjects will be adult (>18 year old, male or female) idiopathic OAB patients without known neurological or urinary tract disease.

CS2.2**Select the category that best describes your research:**

Biomedical research

[\[reviewer notes→\]](#)**CS3.0****Name of the Principal Investigator:**

[Christopher Chermansky](#)

Note: Adjunct faculty of the University, including lecturers and instructors, are not permitted to serve as a PI or Faculty Mentor but may serve as co-investigators. Refer to [Chapter 4](#) on the HRPO website for more information.

CS3.1 Affiliation of Principal Investigator:

UPitt faculty member

If you chose any of the **Pitt options**, please indicate the specific campus:

[Main Campus - Pittsburgh](#)

If you chose the UPI faculty member option, provide the PI's **University Faculty Title**:

Assistant Professor

CS3.2 Address of Principal Investigator:

700 Kaufmann Building

CS3.3 Recorded Primary Affiliation of the Principal Investigator:

U of Pgh | School of Medicine | Urology

CS3.4 Identify the School, Department, Division or Center which is responsible for oversight of this research study:

[U of Pgh](#) | [School of Medicine](#) | [Urology](#)

CS3.5 Telephone Number of Principal Investigator:

412-692-4099

CS3.6 Recorded Current E-mail Address of Principal Investigator to which all notifications will be sent:

chermanskycj2@upmc.edu

CS3.7 Fax Number:

412-641-1366

CS3.8 Does this study include any personnel from Carnegie Mellon University, and/or use any CMU resources or facilities (e.g., Scientific Imaging and Brain Research Center (SIBR))?

* No

CS3.9 Is this your first submission, as PI, to the Pitt IRB?

* No

[\[reviewer notes→\]](#)**CS4.0****List of Co-Investigators:**

Last First	Organization
Tai Changfeng	U of Pgh School of Engineering

[\[reviewer notes→\]](#)**CS5.0****Name of Primary Research Coordinator:**[Janet Okonski](#)**CS5.1****Address of Primary Research Coordinator:**

700 Kaufmann Building

CS5.2**Telephone Number of Primary Research Coordinator:**

412-692-4099

CS6.0**Name of Secondary Research Coordinator:**

Anna Wecht

CS6.1**Address of Secondary Research Coordinator:**

700 Kaufmann Building

CS6.2**Telephone Number of Secondary Research Coordinator:**

412-647-5907

CS6.3**Key Personnel/Support Staff (Only list those individuals who require access to OSIRIS):**

Last	First	Organization
Bansal	Utsav	Other
Chermansky	Christopher	U of Pgh School of Medicine Urology
Karausky	Patricia	U of Pgh Associate Vice Chancellor of Human Resources All Temps
Okonski	Janet	U of Pgh School of Medicine Urology
Shen	Bing	U of Pgh School of Medicine Pharmacology
Tai	Changfeng	U of Pgh School of Engineering

[\[reviewer notes→\]](#)**CS7.0****Will this research study use any Clinical and Translational Research Center (CTRC) resources?**

No

[\[reviewer notes~\]](#)**CS8.0 Select the entity responsible for scientific review.****Department Review** - (a dean, department chair, division chief, or center head)Note: **DoD funded studies** require departmental review**CS8.1 Select the school, department or division which is responsible for scientific review of this submission.**[U of Pgh](#) | [School of Medicine](#) | [Urology](#)[\[reviewer notes~\]](#)**CS9.0 Does this research study involve the administration of an investigational drug or an FDA-approved drug that will be used for research purposes?**

* No

CS10.0 Is this research study being conducted under a University of Pittsburgh-based, sponsor-investigator IND or IDE application?

* No

If YES, you are required to submit the IND or IDE application and all subsequent FDA correspondence through the Office for Investigator-Sponsored IND and IDE Support (O3IS). Refer to applicable University policies posted on the O3IS website (www.O3IS.pitt.edu).

[\[reviewer notes~\]](#)**CS11.0 Use the 'Add' button to upload one or more of the following:**

- the sponsor protocol (including investigator initiated studies) and/or other brochures
- the multi-center protocol and consent form template, *if applicable*

Name Modified Date

Is this research study supported in whole or in part by industry? This includes the provision of products (drugs or devices).

* No

Is this a multi-centered study?

* No

[\[reviewer notes~\]](#)**CS12.0**

Does your research protocol involve the evaluation or use of procedures that emit ionizing radiation?

* No

CS13.0

Does this research study involve the deliberate transfer of recombinant or synthetic nucleic acid molecules into human subjects?

* No

Upload Appendix M of NIH Guidelines:

Name

Modified Date

CS14.0

Are you using UPMC facilities and/or UPMC patients during the conduct of your research study?

* Yes

If Yes, upload completed Research Fiscal Review Form:

Name

Modified Date

[Fiscal Review and Institutional Account Request Form.docx](#)

3/8/2013 3:38 PM

[\[reviewer notes~\]](#)**CS15.0**

Indicate the sites where research activities will be performed and/or private information will be obtained.

Choose all sites that apply and/or use **Other** to include sites not listed:

Sites:

[University of Pittsburgh](#)

[UPMC](#)

University of Pittsburgh

Campus:

[Main Campus - Pittsburgh](#)

List university owned off-campus research sites if applicable:

UPMC

Sites:

[UPMC Presbyterian](#)

[UPMC Magee Women's Hospital](#)

[UPMC Mercy](#)

[UPMC Shadyside](#)

If you selected **School, International** or **Other**, list the sites:

*** For research being conducted at non Pitt or UPMC sites, upload a site permission letter granting the researcher permission to conduct their research at each external site:**

Name Modified Date

CS15.1 Have you, [Christopher Chermansky](#) , verified that all members of the research team have the appropriate expertise, credentials, and if applicable, hospital privileges to perform those research procedures that are their responsibility as outlined in the IRB protocol?

* Yes

CS15.2 Describe the availability of resources and the adequacy of the facilities to conduct this study:

* Dr. Christopher Chermansky is an urologist at the UPMC urology department. The CMG tests will be performed by Dr. Chermansky at a UPMC clinic that has adequate resources and equipment for performing these tests. We have a CMG machine at our Magee Women's Hospital clinic that is easily accessible. The investigators have access to protected servers for data security and information protection.

[\[reviewer notes~\]](#)

CS16.0 Special Research Subject Populations:

Categories

None

[\[reviewer notes~\]](#)

CS17.0 Does your research involve the experimental use of any type of human stem cell?

* No

[\[reviewer notes~\]](#)**NIH Definition of a Clinical Trial**

A research study¹ in which one or more human subjects² are prospectively assigned³ to one or more interventions⁴ (which may include placebo or other control) to evaluate the effects of those interventions on health related biomedical or behavioral outcomes.⁵

¹ See Common Rule definition of research at [45 CFR 46.102\(d\)](#) .

² See Common Rule definition of human subject at [45 CFR 46.102\(f\)](#) .

³ The term "prospectively assigned" refers to a pre-defined process (e.g., randomization) specified in an approved protocol that stipulates the assignment of research subjects (individually or in clusters) to one or more arms (e.g., intervention, placebo, or other control) of a clinical trial.

⁴ An intervention is defined as a manipulation of the subject or subject's environment for the purpose of modifying one or more health-related biomedical or behavioral processes and/or endpoints. Examples include: drugs/small molecules/compounds; biologics; devices; procedures (e.g., surgical techniques); delivery systems (e.g., telemedicine, face-to-face interviews); strategies to change health-related behavior (e.g., diet, cognitive therapy, exercise, development of new habits); treatment strategies; prevention strategies; and, diagnostic strategies.

⁵ Health-related biomedical or behavioral outcome is defined as the pre-specified goal(s) or condition(s) that reflect the effect of one or more interventions on human subjects' biomedical or behavioral status or quality of life. Examples include: positive or negative changes to physiological or biological parameters (e.g., improvement of lung capacity, gene expression); positive or negative changes to psychological or neurodevelopmental parameters (e.g., mood management intervention for smokers; reading comprehension and /or information retention); positive or negative changes to disease processes; positive or negative changes to health-related behaviors; and, positive or negative changes to quality of life.

CS18.0 * Based on the above information, does this study meet the NIH definition of a clinical trial?

☒ **Yes** ☐ No

If Yes, click Save and then [Click Here For Study Team's CITI Training Records](#) . Please ensure all personnel's training is up to date

[\[reviewer notes~\]](#)

- 1.1 Objective: What is the overall purpose of this research study?** (Limit response to 1-2 sentences.)
To determine the effects of electrical stimulation of the nerves in the foot on overactive bladder conditions.
- 1.2 Specific Aims: List the goals of the proposed study (e.g., describe the relevant hypotheses or the specific problems or issues that will be addressed by the study).**
Aim #1: To determine if foot stimulation can increase bladder capacity during CMG test.
Aim #2: To determine if foot stimulation can improve OAB symptoms during a 3-week period with foot stimulation applied during the second week.
Aim #3: To determine the possible placebo effect of foot stimulation on OAB symptoms using hand stimulation.
Aim #4 To determine if foot stimulation can improve OAB symptoms during a 12-week foot stimulation period
- 1.3 Background: Briefly describe previous findings or observations that provide the background leading to this proposal.**
Our previous animal studies using cats have shown that electrical stimulation of the foot via skin surface electrodes inhibits bladder overactivity. Our recent study in healthy human subjects further showed that bladder capacity can be significantly increased by foot stimulation. In this study, we aim to determine the effects of electrical stimulation of the nerves in the foot on patients with medically refractory overactive bladder.
- 1.4 Significance: Why is it important that this research be conducted? What gaps in existing information or knowledge is this research intended to fill?**
Pharmacotherapy for OAB is not effective and has significant adverse effects, causing more than 70% OAB patients to stop taking the medication. Alternative therapies include sacral or tibial neuromodulation, and intravesical botox injections. Sacral neuromodulation is invasive, requiring surgeries to implant a small electrical stimulator and electrodes to stimulate nerves near the sacral spinal nerves. Tibial neuromodulation is less invasive but requires insertion of a needle at the ankle to stimulate the tibial nerve for 30 minutes, once a week for 12 weeks at the doctors office; thereafter, it's once a month. Botox injection therapy requires placing a camera into the bladder to inject the medicine into the muscle of the bladder. This is also invasive and it carries with it a 20% chance of urinary retention. If our study is successful, it will improve OAB conditions by electrically stimulating the nerves of the foot. This foot stimulation is non-invasive, can be individualized (some patients may require more frequent stimulation than others), can be performed at home, and has no adverse effects. Foot stimulation therapy will likely be accepted by more patients and can make a broader impact on the improvement of OAB conditions.

[\[reviewer notes→\]](#)

2.1 Does this research study involve the use or evaluation of a drug, biological, or nutritional (e.g., herbal or dietary) supplement?

* No

[\[reviewer notes→\]](#)

2.2 Will this research use or evaluate the safety and/or effectiveness of one or more devices?

* Yes

2.2.1 Does this research study involve an evaluation of the safety and/or effectiveness of one or more devices not currently approved by the FDA for general marketing?

* No

[\[reviewer notes-\]](#)

2.2.2 Does this research study involve the use or evaluation of the safety and/or effectiveness of one or more devices approved by the FDA for general marketing?

* Yes

2.2.2.1 Does this research study involve an evaluation of one or more FDA-approved devices for a clinical indication, subject population, and/or operational parameter that is not specified in the current FDA-approved product labeling for that device (i.e., for an "off-label" indication)?

* Yes

2.2.2.1.1 List each of the devices being evaluated for an "off-label" indication. Specify for each listed device the corresponding Investigational Device Exemption (IDE) number for this device/research study; or provide a justification for why you feel that this device and its "off-label" use, as proposed in this research study (i.e., to include potential failure of the device) constitute a non-significant risk to the involved research subjects.

*

Device	IDE #	Non-significant risk justification
View Transcutaneous Electrical Nerve Stimulator (TENS)		The transcutaneous electrical nerve stimulator (TENS) is a battery powered stimulator that is commercially available and FDA-approved for individual use at home to stimulate muscles/nerves. 1. It is not an implant. 2. It is not used in supporting or sustaining human life. 3. It does not aid in diagnosing, curing, mitigating, or treating disease. 4. It does not present a potential for serious risk to the health, safety, or welfare of a subject. TENS will be used in this study to deliver electrical stimulation via adhesive pad electrodes attached to the skin surface of the foot. The proposed use parallels the safety parameters of TENS already approved by the FDA. The investigators, Drs. Tai, Chen, and Shen, have many years of experience with electrical stimulation and neurophysiology. They are qualified in using the TENS stimulator correctly. Furthermore, the FDA approves of TENS use at home for muscle/back pain and neuropathy. Therefore, we believe this is a non-significant risk device.

[\[reviewer notes→\]](#)

2.3 Summarize the general classification (e.g., descriptive, experimental) and methodological design (e.g., observational, cross-sectional, longitudinal, randomized, open-label single-blind, double-blind, placebo-controlled, active treatment controlled, parallel arm, cross-over arm) of the proposed research study, as applicable.

This is an experimental, single-blind, placebo controlled study. Only the study team know that the hand stimulation is a placebo, but the subjects do not know. The results obtained before and after the treatment (foot stimulation or hand stimulation) will be compared in the same subject.

2.3.1 Does this research study involve a placebo-controlled arm?

* Yes

[\[reviewer notes→\]](#)

2.3.1.1 Is there a commonly used diagnostic/treatment approach that is currently recognized as being effective for the proposed subjects' disease or condition, and that will be withheld from subjects assigned to the placebo arm of this research study?

No; subjects assigned to the placebo and experimental arms of the research study will continue to undergo a commonly used diagnostic/treatment approach

[\[reviewer notes→\]](#)

2.4 Will any research subjects be withdrawn from known effective therapy for the purpose of participating in this research study?

* Yes

2.4.1 Provide a justification for discontinuing subjects from known effective therapy for the purpose of study participation.

One group of subjects will be asked to stop the OAB drugs, so that the effects of foot neuromodulation on OAB conditions can be determined without any effects of OAB drugs. The drugs can potentially interact with foot neuromodulation.

2.4.2 Describe the risks to subjects associated with discontinuing them from known effective therapy for the purpose of study participation.

Currently available OAB drugs can only improve the OAB conditions by reducing an average of 1-2 voids/day, which are not very effective therapies and most often associated with many adverse effects. Therefore, the only risks for stopping these OAB drugs will be losing the benefits of reducing 1-2 voids/day. Most OAB patients have a frequency of voiding about 10-15 times/day. Those patients are taking the drug because currently there is no other better drug.

[\[reviewer notes~\]](#)

2.5 Will screening procedures (i.e., procedures to determine research subject eligibility) be performed specifically for the purpose of this research study?

* Yes

2.5.1 List the **screening procedures that will be performed for the purpose of this research study. Do NOT include the inclusion/exclusion criteria in this section as they will be addressed in section 3; questions 3.13 and 3.14.**

The screening procedure only includes a review of patient's medical records. No other procedures will be performed. Patient's medical record has all the information we need to determine the idiopathic OAB condition.

An urinalysis is normally done as part of standard of care and will be checked in the medical record for evidence of UTI. The standard office visit questions, which is also available in the medical record and includes questions about prior strokes, spinal cord injuries, and so forth, will be used to rule out those who may have a neurologic reason for bladder overactivity.

Dr. Chermansky who has clinical responsibilities to the patient will review the medical records for eligibility. We also request a waive of consent for this review on section 4.7.

[\[reviewer notes~\]](#)

2.6 Provide a detailed description of all research activities (e.g., all drugs or devices; psychosocial interventions or measures) that will be performed for the purpose of this research study.

This description of activities should be complete and of sufficient detail to permit an assessment of associated risks.

At a minimum the description should include:

- **all research activities**
- **personnel (by role) performing the procedures**
- **location of procedures**
- **duration of procedures**
- **timeline of study procedures**

The CMG test (1 hour duration) will be performed on 20 subjects by Dr. Chen and Dr. Chermansky at UPMC urology clinics as follows (this group is numbered as group 5):

1. A sterile urethral catheter will be inserted by a physician, physician assistant, or nurse into the bladder for cystometrogram (CMG), i.e. measuring bladder pressure while infusing the bladder with sterile saline. Prophylactic dose of antibiotic (typically cipro 500mg or bactrim DS) is provided before placing the catheter.
2. Skin surface electrodes will be attached to the bottom of one foot for electrical stimulation. The stimulator and electrodes are FDA-approved devices for transcutaneous electrical nerve stimulation (TENS) and are commercially available. The stimulation characteristics include a continuous frequency of 5 Hz, pulsewidth 0.2 ms, and intensity 2-4 times the threshold voltage required for inducing toe twitching - or the intensity that the subject feels comfortable with.
3. Total of 2 CMGs will be performed on each subject. In the first group (10 subjects), the

foot stimulation will not be applied during the first CMG but will be applied during the second CMG. In the second group (10 subjects), the foot stimulation will be applied during the first CMG but not during the second CMG. The repeated CMG effect (if any) can be detected by comparing the results from the 2 subject groups.

The 3-week voiding diary test will be performed by 80 subjects at home as follows:

1. The subject will be instructed to record a voiding diary that includes the time and urine volumes per void, the number of incontinence and nocturia episodes, and an urinary urgency score every day during the 3-week period. The voiding diary form is included in the IRB application. The subjects will also be instructed how to use the stimulator and where to attach the electrodes on the foot at the beginning of the study. The investigator will provide the stimulator and electrodes. The subjects will be asked to wear socks to prevent the electrodes from detachment and to stop the stimulation during walking or in any non-resting situation. The subjects will be asked to complete two brief questionnaires (UDI-6 and IIQ-7) about their bladder symptoms.

2. During the second week, skin surface electrodes will be attached to the bottom of one foot or the palm of the hand for electrical stimulation. The stimulator and electrodes are FDA-approved devices for transcutaneous electrical nerve stimulation (TENS) that are commercially available. The stimulation parameters include a continuous frequency of 5 Hz, pulsewidth 0.2 ms, and intensity 2-4 times the threshold voltage for inducing toe twitching or the intensity that the subject feels comfortable with. At the end of the second week, subjects will complete the two brief bladder questionnaires (UDI-6 and IIQ-7) at home.

3. STUDY GROUPS:

Group 1: (20 subjects) foot stimulation will only be applied for 3 hours in the evening prior to sleep.

Group 2: (20 subjects) foot stimulation will be applied for one half hour in the evening prior to sleep

Group 3: (20 subjects) hand stimulation will be applied for 3 hours in the evening prior to sleep.

Group 4: (20 subjects) Patients will be specifically asked to stop their OAB drug 2 weeks prior to starting the study. Once the OAB specific drug has been "washed out", the subject will begin the 3 week trial (week 1 voiding diary without foot stimulation; week 2 voiding diary with foot stimulation, and week 3 voiding diary without foot stimulation). This group will not be done until group 1 and 2 are completed and an interim analysis is done to determine which is more effective. The subjects will use either 3 hours or half hour stimulation in the evening depending on which is more effective, or use the half hour stimulation if both stimulation durations are equally effective.

4. The subjects can call or email the investigators anytime during the 3-week at-home test for questions or any problems encountered. At the end of the 3-week test, the subjects are asked to return the stimulator and voiding diary to the investigator's office. At the end of the 3 week diary, subjects will complete the two brief bladder questionnaires (UDI-6 and IIQ-7) at home.

--

The 12-week Foot Stimulation Test will be performed by 20 subjects as follows:

Subjects will be asked to record in a three day voiding diary four times over a 14 week period. A urine collection hat with measurement scale will be provided to subjects to collect and measure the voided urine volume.

The three day voiding diary will be completed at the following timepoints: Before foot stimulation, 6 weeks after beginning foot stimulation, the last three days of the 12 week foot stimulation period., the week after completing foot stimulation.

Electrical stimulation of the foot via skin surface electrodes will be self-applied at home. We will meet subjects prior to the home test to teach how to use the transcutaneous electrical nerve stimulator (TENS) and where to attach the skin surface electrodes.

Subjects will be asked to stimulate the foot for 12 weeks for the following duration:

Week1: 3 hours of foot stimulation in the evening prior to sleep

Week 2-12: 3 hours of foot stimulation in the evening prior to sleep, every third day. (A calendar will be provided to help keep track of the stimulation days)

Two brief questionnaires about bladder symptoms will be completed at four different time points throughout the study: before the stimulation begins, at the end of the 6th week of foot stimulation, at the end of the 12th week of foot stimulation and the week after the foot stimulation is complete

Subject assignment:

The subjects will be assigned by the investigator to either the CMG test, 3-week at-home test or the 12-week at home test. If the subject would like to participate in both the CMG test and the 3-week at-home test or 12-week test, they will be allowed to do so. However, the subjects can only participate in one of the 3-week at-home test groups or 12-week test group. The subjects will be assigned sequentially to groups 1-4 in the 3-week at-home test groups. Once the number of subjects in one group is reached, no subject will be further assigned to that group.

2.6.1

Will blood samples be obtained as part of this research study?

* No

*If submitting a protocol for expedited review, it should be clear that the planned blood draws are within the parameters described here:

<http://www.hhs.gov/ohrp/policy/expedited98.html> (see Expedited Research Category #2)

If **Yes**, address the frequency, volume per withdrawal, the total volume per visit, and the qualifications of the individual performing the procedure:

Study Flow Chart:

Name

Modified Date

[\[reviewer notes~\]](#)

2.7

Will follow-up procedures be performed specifically for research purposes?

Follow-up procedures may include phone calls, interviews, biomedical tests or other monitoring procedures.

* No

[\[reviewer notes→\]](#)**2.8 Does this research study involve the use of any questionnaires, interview or survey instruments?**

* Yes

Upload a copy of all materials except for the SCID or KSADS which are on file at the IRB. The use of all instruments must be addressed in question 2.6 and/or question 2.7 (except for an exempt submission where they should be addressed on the appropriate uploaded exempt form).

Name	Modified Date
VoidingDiary-revised.docx	10/23/2013 11:05 AM
Questionnaires (UDI-6 and IIQ-7)	11/24/2014 12:14 PM

Previously the name and publisher for commercially available materials were listed in the textbox below but effective 9/1/2015, all materials (except for the SCID and KSADS) must be uploaded using the Add button above.

[\[reviewer notes→\]](#)**2.9 If subjects are also patients, will any clinical procedures that are being used for their conventional medical care also be used for research purposes?**

* yes

If **Yes**, describe the clinical procedures (and, if applicable, their frequency) that will be used for research purposes:
We will not perform a urinalysis specifically for this research project. However, the result of urinalysis as part of standard clinical care will be reviewed in the medical record and used to screen the patients for eligibility.

2.10 The blood sample question was moved to 2.6.1.[\[reviewer notes→\]](#)**2.11 What is the total duration of the subject's participation in this research study across all visits, including follow-up surveillance?**

* Total 1 hour for CMG test subjects, 3 weeks for voiding diary test subjects. This does not include a 2 week pre-study drug "wash out" period. 14 weeks for the 12-week study group

[\[reviewer notes→\]](#)**2.12 Does this research study involve any type of planned deception?**

If Yes, you are required to request an alteration of the informed consent process (question 4.7)

* No

[\[reviewer notes-\]](#)

2.13 Does this research study involve the use of UPMC/Pitt protected health information that will be de-identified by an IRB approved "honest broker" system?

* No

[\[reviewer notes~\]](#)**2.14**

Will protected health information from a UPMC/Pitt HIPAA covered entity be accessed for research purposes or will research data be placed in the UPMC/Pitt medical record?

* Yes

If you answer **Yes**, you are required to submit this study to the Research Informatics Office, Health Record Research Request (R3). Per UPMC Policy HS-RS0005, all research projects that access or involve UPMC electronic protected health information (e-PHI) must be submitted to R3, with the exception of clinical trials that are contracted through the UPMC Office of Sponsored Programs and Research Support (OSPARS).

Complete the R3 intake form available at <http://rio.pitt.edu/services>. An R3 representative will conduct a review. You will be notified once your R3 review is complete or if anything further is needed.

Describe the medical record information that will be collected from the UPMC/Pitt HIPAA covered entity and/or the research-derived information that will be placed in the medical records.

Medical record will only be accessed for screening the patients for eligibility. An urinalysis is normally done as part of standard of care and will be checked in the medical record for evidence of UTI. The standard office visit questions, which is also available in the medical record and includes questions about prior strokes, spinal cord injuries, and so forth, will be reviewed to rule out those who may have a neurologic reason for bladder overactivity.

No research data will be placed in the medical record.

2.14.1 Will protected health information from a non-UPMC/Pitt HIPAA covered entity be obtained for research purposes or will research data be placed in the non-UPMC/Pitt medical record?

* No

I, Christopher Chermansky , certify that any member of my research team accessing, reviewing and/or recording information from medical records have completed the CITI Privacy & Information Security course or, if completed within the past year, the Internet-Based Studies in Education and Research (ISER) HIPAA for Researchers (Formerly RPF Module 6). The HIPAA certificates must be available for review if audited but do not need to be uploaded into this OSIRIS application.

* Yes

2.14.2

Are you requesting a waiver of the requirement to obtain written HIPAA authorization for the collection of the PHI?

* No

[\[reviewer notes~\]](#)**2.15 Does this research study involve the long-term storage (banking) of biological specimens?**

* No

[\[reviewer notes~\]](#)**2.16 Will research participants be asked to provide information about their family members or acquaintances?**

* No

[\[reviewer notes~\]](#)**2.17 What are the main outcome variables that will be evaluated in this study?**

1. CMG measurements including the bladder volumes for first sensation, first desire to void, and strong desire to void.
2. 3 week voiding diary data include voiding frequency, voided volume, number of incontinence episodes, nocturia, and urgency episodes per day.
3. 12 week voiding diary data including voiding frequency, voided volume, number of incontinence episodes, nocturia and urgency episodes per day

2.18 Describe the statistical approaches that will be used to analyze the study data.

* Addressed below:

The data will be statistically analyzed using student t-test and ANOVA.

[\[reviewer notes~\]](#)**2.19 Will this research be conducted in (a) a foreign country and/or (b) at a site (e.g., Navajo Nation) where the cultural background of the subject population differs substantially from that of Pittsburgh and its surrounding communities?**

* No

Note that copies of training records, licenses, certificates should be maintained in the study regulatory binder and are subject to audit by the Research Conduct and Compliance Office (RCCO).

In addition, individuals planning to conduct human subject research outside the United States must complete an optional module on the CITI training website: International Studies. [Click here](#) to access the instruction sheet for accessing optional CITI modules.

[\[reviewer notes→\]](#)**2.21**

Will this research study be conducted within a nursing home located in Pennsylvania?

* No

[\[reviewer notes→\]](#)

Section 3 - Human Subjects

3.1 What is the age range of the subject population?

>18 years old

3.2 What is their gender?

* Both males and females

Provide a justification if single gender selected:

3.3 Will any racial or ethnic subgroups be explicitly excluded from participation?

* No

If **Yes**, identify subgroups and provide a justification:

3.4 For studies conducted in the U.S., do you expect that all subjects will be able to comprehend English?

* Yes

[\[reviewer notes→\]](#)

3.5 Participation of Children: Will children less than 18 years of age be studied?

* No

If **No**, provide a justification for excluding children:

The concern is that children under 18 years old might not follow the procedures as designed. Also, this is a pilot study aimed at foot neuromodulation of OAB in adult human subjects.

[\[reviewer notes→\]](#)

3.6 Does this research study involve prisoners, or is it anticipated that the research study may involve prisoners?

* No

[\[reviewer notes→\]](#)

3.7 Will pregnant women be knowingly and purposely included in this research study?

* No

[\[reviewer notes→\]](#)

3.8 Does this research study involve neonates of uncertain viability or nonviable neonates?

* No

[\[reviewer notes→\]](#)

3.9 Fetal Tissues: Does this research involve the use of fetal tissues or organs?

* No

[\[reviewer notes-\]](#)

--->

3.10

What is the total number of subjects to be studied at this site, including subjects to be screened for eligibility?

Note: The number below is calculated by summing the data entered in question 3.11. Any additions or changes to the values entered in 3.11 will be reflected in 3.10.

* 120

3.11

Identify each of the disease or condition specific subgroups (include healthy volunteers, if applicable) that will be studied.

Click on the "Add" button and specify for each subgroup:

1) how many subjects will undergo research related procedures at this site; and

2) if applicable, how many subjects will be required to undergo screening procedures (e.g., blood work, EKG, x-rays, etc.) to establish eligibility. Do Not include subjects who will undergo preliminary telephone screening.

*

Subgroup	Number to undergo research procedures	Number to undergo screening procedures
View Group #6: 12-week foot stimulation test	20	0
View Group #4: drug washout group with foot stimulation of 3 or 0.5 hrs	20	0
View Group #2: half hour foot stimulation before sleep	20	0
View Group #3: placebo/hand simulation group	20	0
View Group #5: CMG group	20	0
View Group #1: 3 hour foot stimulation before sleep	20	0

3.12

Provide a statistical justification for the total number of subjects to be enrolled into this research study at the multicenter sites or this site.

* Described below:

This is a pilot study to determine if foot stimulation has any beneficial effect on OAB. The 6 subgroups as listed above are designed to answer the following questions: 1. Is there any effect of foot stimulation on bladder activity detectable during CMG (group #5)? 2. What stimulation duration (3 or 0.5 hours) is required in order to have the optimal effect as determined on voiding diary (groups #1-#2)? Are the effects of foot stimulation caused by placebo effect (group #3)? Does a drug washout period affect foot stimulation on OAB symptoms (group #4)? Does 12 weeks of foot stimulation every third day for 3 hours improve OAB symptoms? Since the variations of human CMG and voiding diary are unknown, it is difficult to determine the total number of subjects based on statistical analysis. Therefore, we decided to use 20 subjects per group in this pilot study. However, once statistical significance is reached, we will stop recruiting additional subjects in order to maintain the subject number at a minimum.

[\[reviewer notes-\]](#)**3.13 Inclusion Criteria: List the specific criteria for inclusion of potential subjects.**

1. 18 year old men and women and older
2. Currently having overactive bladder (OAB) symptoms, i.e. urgency, frequency, or incontinence
3. No evidence of neurological disorder or urinary tract infection, i.e. clinically diagnosed as idiopathic OAB

3.14 Exclusion Criteria: List the specific criteria for exclusion of potential subjects from participation.

1. Pregnant women in their late pregnancy phase will be excluded because the increasing size of the baby/uterus may cause overactive bladder.
2. Patients with implanted electrical stimulators such as pacemaker will be excluded for potential interference with the TENS stimulator.
3. Patients who are allergic to Cipro and Bactrim will be excluded from the CMG study.

3.15 Will HIV serostatus be evaluated specifically for the purpose of participation in this research study?

* No

If **Yes**, provide a justification:

[\[reviewer notes-\]](#)**4.1** Select all recruitment methods to be used to identify potential subjects:

Advertisements

Recruitment Letters and/or Scripts

[Pitt + Me](#)**Advertisements**

Upload the advertisements for review:

Name	Modified Date
PRO13020474 Tai Chermansky.docx	7/6/2016 4:37 PM
OAB FS flyer4.pdf	2/17/2017 11:04 AM

Recruitment Letters and Scripts

Upload recruitment letters/scripts/text:

Name	Modified Date
RecuitmentLetter-drug.doc	6/3/2015 5:21 PM
RecuitmentLetter-normal.doc	6/3/2015 5:21 PM

4.2 **Provide a detailed description of your recruitment methods, including identifying and initiating contact with participants:**

The subjects will be initially identified by Dr. Chermansky based on their medical history, and then be contacted by mail or email using the recruitment letter. The review of patient medical records is under the Waiver of Consent as described in section 4.7. The flyer will be given to potential subjects identified in the physicians office. We will also be using Pitt+Me (formerly called the CTSI Research Participant Registry) to advertise this study including social media (e.g., Facebook, Twitter)

Note: Questions jump from 4.2 to 4.6 as questions 4.3-4.5 have been removed and the information is now captured in 4.1

[\[reviewer notes~\]](#)

4.6 Are you requesting a waiver to document informed consent for any or all participants, for any or all procedures? (e.g., a verbal or computerized consent script will be used, but the subjects will not be required to sign a written informed consent document. *This is not a waiver to obtain consent.*

* No

[\[reviewer notes~\]](#)

4.7 Are you requesting a waiver to obtain informed consent or an alteration of the informed consent process for any of the following?

* Yes

4.7.1 If Yes, select the reason(s) for your request:

Medical record review for ONLY the identification of potential subjects

General Requirements: The Federal Policy **[45 CFR 46.116 (d)]** specifies in order for a waiver of consent to be approved, the request must meet four criteria. For each request, you will be asked to provide a justification addressing how each of these criterion is met.

Medical record review for the identification of potential subjects:

The research involves no more than minimal risk to the subjects;
[45 CFR 46.116 (d) (1)]

We will only review medical records to identify potential subjects. We will not extract or record any information from the medical record. This review procedure imposes no physical or psychological risks to the patients. Therefore, we believe it has no more than minimal risk.

The waiver or alteration will not adversely affect the rights and welfare of the subjects;
[45 CFR 46.116 (d) (2)]

The rights and welfare of these patients will not be negatively affected because this research team is lead by a UPMC urologist who already has legitimate access to the medical records by virtue of his clinical responsibilities.

The research could not practicably be carried out without the waiver or alteration;
[45 CFR 46.116 (d) (3)]

It would not be practicable to obtain the full consent of the urology patient without first reviewing the medical record. Medical record review is intended to determine whether or not the patient meets the eligibility criteria, which can not be used to replace the patient consent. A full consent will be conducted as described in this application.

It would not be practicable to obtain the consent of the urology patient simply to examine his or her PHI only to determine whether or not s/he meets the eligibility criteria.

Whenever

We will not obtain any pertinent information from the medical record

Section: Section 4 - Recruitment and Informed Consent Procedures

appropriate, the subjects will be provided with additional pertinent information after participation;
[45 CFR 46.116 (d) (4)]

review.

4.7.2 Under what circumstances (if any) will you obtain consent from some of these subjects?

Under no circumstance, we will obtain consent for medical record review. However, we will obtain a full consent from the patient for the studies to be performed.

[\[reviewer notes-\]](#)

4.8 Are you requesting an exception to the requirement to obtain informed consent for research involving the evaluation of an 'emergency' procedure?

Note: This exception allows research on life-threatening conditions for which available treatments are unproven or unsatisfactory and where it is not possible to obtain informed consent.

* No

[\[reviewer notes→\]](#)**4.9****Upload all consent documents for watermarking:**

Draft Consent Forms for editing:

Name	Modified Date
draft consent tai normal 2.15.17.doc	2/23/2017 12:40 PM
draft consent form Tai no drug 2.15.17.doc	2/23/2017 12:40 PM

Approved Consent Form(s):

Name	Modified Date
draft consent tai normal 2.15.17.doc	8/1/2018 2:29 PM
draft consent form Tai no drug 2.15.17.doc	8/1/2018 2:29 PM

[\[reviewer notes→\]](#)**4.10 Will all potential adult subjects be capable of providing direct consent for study participation?**

*

Yes

[\[reviewer notes→\]](#)**4.11****At what point will you obtain the informed consent of potential research subjects or their authorized representative?**

After performing certain of the screening procedures, but prior to performing any of the research interventions/interactions

4.11.1**Address why you feel that it is acceptable to defer obtaining written informed consent until after the screening procedures have been performed.**

Our screening procedure only includes a review of patient medical record. We have request a waiver of consent for accessing medical record and provided the reasons for the waiver on section 4.7.

4.11.2**Taking into account the nature of the study and subject population, indicate how the research team will ensure that subjects have sufficient time to decide whether to participate in this study. In addition, describe the steps that will be taken to minimize the possibility of coercion or undue influence.**

After sending out the recruitment letter, we will wait for the subject to make a decision to contact us. If there is no response from the potential subject in 2 weeks, we will send another recruitment letter. We will also try to contact the subject by phone or email if still no response in 2 weeks after the second letter to make sure the letter is received. We will not ask the patients if they want to participate on the phone or email. The intention to participate will always be initiated by the subject by contacting us.

[\[reviewer notes-\]](#)

4.12 Describe the process that you will employ to ensure the subjects are fully informed about this research study.

* Addressed below:

This description must include the following elements:

- who from the research team will be involved in the consent process (both the discussion and documentation);
- person who will provide consent or permission;
- information communicated; and
- any waiting period between informing the prospective participant about the study and obtaining consent

In addition, address the following if applicable based on your subject population:

- process for child assent and parental permission
 - continued participation if a child subject turns 18 during participation
- process for obtaining proxy consent and assent for decisionally impaired subjects
 - continued participation if subject regains capacity to consent

Dr. Chermansky will be involved in the consent process to discuss the study with the subject, provide the consent form, and ask/answer questions. After informing the subjects about the study, we will provide them the option to sign the consent forms in a later day if they prefer to do so.

4.13 Are you requesting an exception to either IRB policy related to the informed consent process?

- For studies involving a drug, device or surgical procedures, a licensed physician who is a listed investigator is required to obtain the written informed consent unless an exception to this policy has been approved by the IRB
- For all other studies, a listed investigator is required to obtain consent (Note: In order to request an exception to this policy, the study must be minimal risk)

* No

If **Yes**, provide a justification and describe the qualifications of the individual who will obtain consent:

4.14 Will you inform research subjects about the outcome of this research study following its completion?

* No

If **Yes**, describe the process to inform subjects of the results:

[\[reviewer notes-\]](#)

5.1 Describe potential risks (physical, psychological, social, legal, economic or other) associated with screening procedures, research interventions/interactions, and follow-up/monitoring procedures performed specifically for this study:

*

View	Research Activity:	Cystometrogram (CMG)
	Common Risks:	The feeling of a "full" bladder Discomfort Urgent need to urinate
	Infrequent Risks:	Flushing Nausea Pain Sweating Infection from the urethral catheter being inserted into the bladder Antibiotics given before CMG may cause nausea, diarrhea, rash, loss of appetite, or headache
	Other Risks:	Rare Risks: Blood in the urine Bladder perforation (a small hole in the bladder). Urethral injury or stricture requiring further interventions such as a chronic catheter and need for further procedures
View	Research Activity:	Electrical stimulation of the foot
	Common Risks:	There is a potential risk for foot stimulation to interfere with implanted electrical stimulators such as pacemaker. Other risks may include potential foot cramp, skin irritation, redness, or rash.
	Infrequent Risks:	n/a
	Other Risks:	n/a
View	Research Activity:	OAB drug cessation
	Common Risks:	n/a
	Infrequent Risks:	temporary increase in OAB symptoms
	Other Risks:	n/a

5.1.1 Describe the steps that will be taken to prevent or to minimize the severity of the potential risks:

Before CMG, antibiotic will be given to minimize risk of infection. The urethra will also be generous lubricated to minimize urethral trauma during catheter insertion.

To prevent interference between foot stimulation and implanted electrical stimulator, subjects with an implanted stimulator will be excluded from this study. To minimize foot cramping, the lower threshold voltage required will be used for actual stimulation.

To minimize the risks, the research procedures will be conducted by experienced personnel. The subjects will be appropriately trained on how to use the TENS stimulator and attach the electrodes. The subjects will also be told that they can call the investigators anytime with any questions or problems.

OAB drug cessation will not likely worsen the patients' symptoms since only subjects who are having insufficient relief from their medications are being asked to participate.

5.2 What steps will be taken in the event that a clinically significant, unexpected disease or condition is identified during the conduct of the study?

* Addressed below:

Section: Section 5 - Potential Risks and Benefits

The study will be stopped in the event that a clinically significant, unexpected condition is identified. The subject will also be referred to appropriate care for the unexpected condition.

- 5.3** All the risk questions (screening, intervention/interaction, follow-up) have been merged into one question (5.1).

[\[reviewer notes~\]](#)

- 5.4** **Do any of the research procedures pose a physical or clinically significant psychological risk to women who are or may be pregnant or to a fetus?**

* No

[\[reviewer notes~\]](#)

- 5.5** **Do any of the research procedures pose a potential risk of causing genetic mutations that could lead to birth defects?**

* No

[\[reviewer notes~\]](#)

- 5.6** **Are there any alternative procedures or courses of treatment which may be of benefit to the subject if they choose not to participate in this study?**

* Not applicable

If **Yes**, describe in detail:

[\[reviewer notes→\]](#)

5.7 Describe the specific endpoints (e.g., adverse reactions/events, failure to demonstrate effectiveness, disease progression) or other circumstances (e.g., subject's failure to follow study procedures) that will result in discontinuing a subject's participation?

* Describe below:

The study is expected to end when all the procedures are completed. However, if the subject can not follow the study procedures, the subject's participation will be discontinued and the study will be ended.

CMG is a one-time procedure. We won't know if the patient developed an infection until at least hours or days after the procedure. If infection occurs, it will be treated by additional antibiotics.

We expect some electrodes to detach from the foot or hand. However, occasional unattached electrodes will not end the study, since the data will be collected in a week period and a few occurrences of detachment should not change the results. Also, if skin irritation is caused by the electrodes, the study will continue by using another foot or hand and giving the irritated area a day or two to recover. However, if unexpected serious irritation occurs that cannot be avoided by switching to the other foot or hand, the study will be terminated for that subject.

[\[reviewer notes→\]](#)

5.8 Will any individuals other than the investigators/research staff involved in the conduct of this research study and authorized representatives of the University Research Conduct and Compliance Office (RCCO) be permitted access to research data/documents (including medical record information) associated with the conduct of this research study?

* No

5.9 Has or will a Federal Certificate of Confidentiality be obtained for this research study?

* No

5.10 Question has been moved to 5.17

5.11 Question has been moved to 5.16

[\[reviewer notes~\]](#)

5.12 Does participation in this research study offer the potential for direct benefit to the research subjects?

No - Describe the general benefits to society (e.g., increased knowledge; improved safety; better health; technological advancement) that may result from the conduct of this research study.

Describe the benefit:

The subject may not receive direct benefit from participation in this research study. Although the electrical stimulation may help with symptoms of overactive bladder, this benefit is not known or guaranteed. However, information learned from this study will help investigators learn how to better manage the conditions of overactive bladder.

5.13 Describe the data and safety monitoring plan associated with this study. If the research study involves multiple sites, the plan must address both a local and central review process.

1. Dr. Tai and Dr. Chermansky will be responsible for the data and safety monitoring.
2. Since this is a pilot study only including 20 subjects per group, the investigators will monitor the progress of the study and the efficacy of the treatment after collecting data from the first 10 subjects in each group. Any unexpected adverse effect will be addressed immediately and reported to the IRB committee. In addition to the monitoring of every 10 subjects, an annual review of the study will also be conducted to assure the experimental design, identify any unexpected adverse effects for reporting, and review the progress of subject recruitment.
3. The data will be locked in the lab by the investigators for safety and privacy. An annual review of the safety and privacy of the data will be performed. If any problem occurs, it will also be addressed immediately during any time of the year.
4. The following will be reported to IRB annually: a list of persons who monitored the data and safety; the date when the monitoring/review occurs; a summary of any problems detected; final decisions about changes of the study based on the annual review.
5. The potential adverse events may be reported to IRB including:

Use of TENS stimulator:

Foot skin irritation, redness, or rash, or foot cramp.

Cystometrogram (CMG) test:

Flushing

Nausea

Pain

Sweating

Infection

Blood in the urine

Bladder perforation (a small hole in the bladder).

Urethral injury or stricture

[\[reviewer notes~\]](#)

Section 5 - Potential Risks and Benefits of Study Participation

5.14

What precautions will be used to ensure subject privacy is respected? (e.g. the research intervention will be conducted in a private room; the collection of sensitive information about subjects is limited to the amount necessary to achieve the aims of the research, so that no unneeded sensitive information is being collected, drapes or other barriers will be used for subjects who are required to disrobe)

The CMG test will be conducted in a private office and only the investigators have access. The 3-week and 12-week voiding diary test will be conducted by the subject at home without privacy concerns.

5.15

What precautions will be used to maintain the confidentiality of identifiable information? (e.g., paper-based records will be kept in a secure location and only be accessible to personnel involved in the study, computer-based files will only be made available to personnel involved in the study through the use of access privileges and passwords, prior to access to any study-related information, personnel will be required to sign statements agreeing to protect the security and confidentiality of identifiable information, whenever feasible, identifiers will be removed from study-related information, precautions are in place to ensure the data is secure by using passwords and encryption, because the research involves web-based surveys, audio and/or video recordings of subjects will be transcribed and then destroyed to eliminate audible identification of subjects)

The subject name will only be used for screening and scheduling purposes. Once the subject enters the experiment, an ID number (1-120) will be assigned to each subject in place of his/her name and only the subject's age and gender will be recorded for privacy reasons. Subject name will not appear on data collection forms.

The information linking the ID number with the subject's name will be stored in a separate secure location during the study, and will be destroyed at the end of the study. We will not keep any document to link the subject's name to the ID number. After the study is finished, we will have consent forms with subjects names and data forms with ID numbers. Since the link between names and ID numbers are not kept, there will be no identifiable information that could be released. However, the data on papers will still be locked for safety reasons and the electronic data will be stored in password-protected, firewalled computers.

5.16

If the subject withdraws from the study, describe what, if anything, will happen to the subject's research data or biological specimens.

If the subject withdraws from the study, the subject's data will be deleted immediately. No further use of the data will be possible.

5.17

Following the required data retention period, describe the procedures utilized to protect subject confidentiality. (e.g., destruction of research records; removal of identifiers; destruction of linkage code information; secured long-term retention)

After the required data retention period, all data and subject information will be destroyed.

[\[reviewer notes→\]](#)**6.1**

Will research subjects or their insurance providers be charged for any of the procedures (e.g., screening procedures, research procedures, follow-up procedures) performed for the purpose of this research study?

*

No

[\[reviewer notes→\]](#)

6.2 Will subjects be compensated in any way for their participation in this research study?

* Yes

6.2.1

Describe the amount of payment or other remuneration offered for complete participation in this research study.

\$300 for complete participation of one test. \$600 for complete participation of both CMG test and 3-week diary test or 12-week foot stimulation test.

6.2.2

Describe the amount and term of payment or other remuneration that will be provided for partial completion of this research study.

\$50 for partial completion. Partial completion is defined as that the subject has signed the consent form and the study has begun, but the data collection is not finished.

[\[reviewer notes~\]](#)

7.1 Summarize the qualifications and expertise of the principal investigator and listed co-investigators to perform the procedures outlined in this research study.

Christopher Chermansky, MD, Assistant Professor

Dr. Chermansky is a urologist who is qualified for and will be responsible for performing the CMG test. He will also help identify the idiopathic OAB patients.

Changfeng Tai, PhD, Associate Professor

Dr. Tai has many years of experience in electrical stimulation, neurophysiology, and urologic studies. The TENS stimulator is a FDA-approved device for routine use by individuals at home for muscle and back pain. Therefore, he is qualified for performing the non-invasive electrical stimulation of the foot using skin surface electrodes and the TENS stimulator during the initial instruction period for the subjects.

[\[reviewer notes~\]](#)

7.2 Indicate all sources of support for this research study.

*

Selections

Foundation: Upload a copy of the research plan that was submitted to the agency

Other: Upload a copy of the research plan that was submitted for funding (if applicable)

If **Federal** support, provide the sponsor information:

Federal sponsor Grant Title Grant number Awardee institution Federal grant application

For projects not supported by a federal grant, upload the research plan that was submitted for funding:

Name	Modified Date
Product-Development-Plan v3.docx	9/21/2013 6:17 PM

If **Industry** support, provide the sponsor information and level of support:

If **Foundation** support, provide the sponsor information:

Coulter Foundation will provide \$100K in support of this study.

If **Other** support, provide the support information and level of support:

The Department of Urology at the University of Pittsburgh will also provide support in addition to Coulter Foundation funding.

[\[reviewer notes-\]](#)**7.3****Is this study funded in part or whole by a PHS Agency?**

* No

Does any investigator* involved in this study (select all that apply):

Name

- ☐ **A. Have equity in a publicly-traded entity** that either sponsors** this research or owns the technology being evaluated or developed that exceeds a **5% ownership interest** or a current value of **\$10,000**?
- ☒ **B. Have equity in a non-publicly-traded entity that either sponsors this research or owns the technology being evaluated or developed?**
- ☐ **C. Receive salary, consulting fees, honoraria, royalties or other remuneration from an entity that either sponsors this research or owns the technology being evaluated or developed that is expected to exceed \$10,000 during the past or next 12 months?**
- ☒ **D. Have rights as either the author or inventor of intellectual property being evaluated or developed in this research that is the subject of an issued patent or has been optioned or licensed to an entity?**
- ☐ **E. Have an officer or management position**** with a Licensed Start-up Company** overseen by the COI Committee that either sponsors this research or owns the technology being evaluated or developed?
- ☐ **F. Receive compensation of any amount when the value of the compensation would be affected by the outcome of this research, such as compensation that is explicitly greater for a favorable outcome than for an unfavorable outcome or compensation in the form of an equity interest in the entity that either sponsors this research or owns the technology being evaluated or developed?**
- ☐ **None** of the above options apply and there are no other financial conflicts of interest in the conduct of this research.

***Investigator** means the PI, co-investigators, and any other member of the study team, regardless of title, who participates in the design, conduct, or reporting of this research, as well as his/her spouse, registered domestic partner, dependents, or other members of his/her household. **The PI is responsible for ensuring that s/he and all other relevant members of the study team review the above questions describing Significant Financial Interests.**

******through the provision of funds, drugs, devices, or other support for this research

********Such as serving on the Board of Directors or Board of Managers or a position that carries a fiduciary responsibility to the company (e.g., CEO, CFO, CTO, or CMO).

7.3.1 Provide the name of the investigator(s) and describe the nature of the Significant Financial Interest(s):

Changfeng Tai, PhD now has significant financial interest in NeuroSpur, which has licensed the FootStim technology he developed from the University of Pittsburgh

*

Name

[COI Management Plan](#)

Modified Date

2/15/2017 2:23 PM

[\[reviewer notes~\]](#)

Supporting Documentation Section

References and Other Attachments

Additional documents:

Name	Modified Date	Version
References.doc	6/5/2013 3:55 PM	0.01

Please use the Add button to the left to upload additional documents if needed.

[\[reviewer notes~\]](#)

ClinicalTrials.gov is a registry and results database of publicly and privately supported clinical studies of human participants conducted around the world.

"[Applicable clinical trials](#)" are required **by federal law** to be registered in [ClinicalTrials.gov](#).

Applicable Clinical Trials (ACTs) are studies that meet the following criteria:

- The study is an interventional study AND
- The study intervention is a drug, biologic, medical device, radiation or genetic AND
- The Study is not Phase 0 or 1 AND
- The study has at least one site in the United States or is conducted under an investigational new drug application or investigational device exemption

NIH Policy

Effective January 18, 2017, revised [NIH](#) Policy requires that all [clinical trials](#) funded in whole or in part by the NIH be registered and results information posted on ClinicalTrials.gov.

As defined by the NIH, a [clinical trial](#) is:

A research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include placebo or other control) to evaluate the effects of those interventions on health related biomedical or behavioral outcomes.

The NIH Policy extends beyond the Food and Drug Administration Amendment Act (FDAAA 801) requirements in that it requires registration and results reporting of:

- clinical trials of behavioral, surgical and other types of health and medical interventions
- phase 1 studies of drugs and biological products
- small feasibility studies of device products

Failure to submit all required registration and results information requested on ClinicalTrials.gov can jeopardize University grant funding, the future funding of the grantee and subject the University of Pittsburgh to future monetary penalties.

In addition, to promote transparency of the clinical trials process, the [International Committee of Medical Journal Editors \(ICMJE\)](#) has established a policy requiring the entry of clinical trials in a public registry, such as ClinicalTrials.gov, prior to subject enrollment as a condition of consideration for publication of the trial results.

*** Based on the above information, will this study be registered in ClinicalTrials.gov?**

Yes

Who will serve as the Responsible Party? UPMC/Pitt Investigator or IND/IDE Pitt Sponsor

Why are you registering your study? (Check all that apply)

It is strongly encouraged by the NIH

If you are not yet registered and need to establish an account for the PI or other research staff that may need to access the record, please send an email to the University of Pittsburgh PRS administrator at ctgov@pitt.edu with the following information for each individual:

- Full name
- Telephone number
- Pitt or UPMC email address

If you have any questions or concerns, please email us at ctgov@pitt.edu.

To find out additional information about how to register your study go to:
<https://www.clinicaltrials.gov/ct2/manage-recs/how-register>